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- (2)  $P_{in}$  equals the measured operating input wattage;
- (3) The lamp, and the capacitor when the capacitor is provided, shall constitute a nominal system in accordance with the ANSI C78.43, (incorporated by reference; see § 431.323):
- (4) For ballasts with a frequency of 60 Hz,  $P_{\rm in}$  and  $P_{\rm out}$  shall be measured after lamps have been stabilized according to section 4.4 of ANSI C82.6 (incorporated by reference; see §431.323) using a wattmeter with accuracy specified in section 4.5 of ANSI C82.6; and
- (5) For ballasts with a frequency greater than 60 Hz,  $P_{\rm in}$  and  $P_{\rm out}$  shall have a basic accuracy of  $\pm 0.5$  percent at the higher of either 3 times the output operating frequency of the ballast or 2 kHz.

Metal halide ballast means a ballast used to start and operate metal halide lamps.

Metal halide lamp means a high intensity discharge lamp in which the major portion of the light is produced by radiation of metal halides and their products of dissociation, possibly in combination with metallic vapors.

Metal halide lamp fixture means a light fixture for general lighting application designed to be operated with a metal halide lamp and a ballast for a metal halide lamp.

Probe-start metal halide ballast means a ballast that starts a probe-start metal halide lamp that contains a third starting electrode (probe) in the arc tube, and does not generally contain an igniter but instead starts lamps with high ballast open circuit voltage.

Pulse-start metal halide ballast means an electronic or electromagnetic ballast that starts a pulse-start metal halide lamp with high voltage pulses, where lamps shall be started by the ballast first providing a high voltage pulse for ionization of the gas to produce a glow discharge and then power to sustain the discharge through the glow-to-arc transition.

### TEST PROCEDURES

### § 431.323 Materials incorporated by reference.

(a) General. We incorporate by reference the following standards into Subpart S of Part 431. The material

listed has been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Any subsequent amendment to a standard by the standard-setting organization will not affect the DOE regulations unless and until amended by DOE. Material is incorporated as it exists on the date of the approval and a notice of any change in the material will be published in the FEDERAL REGISTER. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or to http://www.archives.gov/ federal register/

code\_of\_federal\_regulations/

ibr\_locations.html. Also, this material is available for inspection at U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, 202–586–2945, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays, or go to: http://www1.eere.energy.gov/buildings/appliance\_standards/. Standards can be obtained from the sources listed below.

- (b) ANSI. American National Standards Institute, 25 W. 43rd Street, 4th Floor, New York, NY 10036, 212-642-4900, or go to http://www.ansi.org.
- (1) ANSI C78.43–2004, Revision and consolidation of ANSI C78.1372–1997, .1374–1997, .1375–1997, .1376–1997, .1378–1997, .1378–1997, .1382–1997, .1384–1997, and .1650–2003 ("ANSI C78.43"), American National Standard for electric lamps: Single-Ended Metal Halide Lamps, approved May 5, 2004, IBR approved for §431.322;
- (2) ANSI C82.6-2005, Proposed Revision of ANSI C82.6-1985 ("ANSI C82.6"), American National Standard for Lamp Ballasts—Ballasts for High-Intensity Discharge Lamps—Methods of Measurement, approved February 14, 2005, IBR approved for §431.322;
- (c) NFPA. National Fire Protection Association, 11 Tracy Drive, Avon, MA 02322, 1–800–344–3555, or go to http://www.nfpa.org;
- (1) NFPA 70-2002 ("NFPA 70"), National Electrical Code 2002 Edition, IBR approved for §431.326;

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- (2) [Reserved]
- (e) UL. Underwriters Laboratories, Inc., COMM 2000, 1414 Brook Drive, Downers Grove, IL 60515, 1–888–853–3503, or go to http://www.ul.com.
- (1) UL 1029 (ANSI/UL 1029–2007) ("UL 1029"), Standard for Safety High-Intensity-Discharge Lamp Ballasts, 5th edition, May 25, 1994, which consists of pages dated May 25, 1994, September 28, 1995, August 3, 1998, February 7, 2001 and December 11, 2007, IBR approved for § 431.326.
  - (2) [Reserved]

# § 431.324 Uniform test method for the measurement of energy efficiency of metal halide ballasts.

- (a) *Scope*. This section provides test procedures for measuring, pursuant to EPCA, the energy efficiency of metal halide ballasts.
- (b) Testing and Calculations. [Reserved]

ENERGY CONSERVATION STANDARDS

## § 431.326 Energy conservation standards and their effective dates.

- (a) Except as provided in paragraph (b) of this section, each metal halide lamp fixture manufactured on or after January 1, 2009, and designed to be operated with lamps rated greater than or equal to 150 watts but less than or equal to 500 watts shall contain—
- (1) A pulse-start metal halide ballast with a minimum ballast efficiency of 88 percent;
- (2) A magnetic probe-start ballast with a minimum ballast efficiency of 94 percent; or
- (3) A nonpulse-start electronic ballast with either a minimum ballast efficiency of 92 percent for wattages greater than 250 watts; or a minimum ballast efficiency of 90 percent for wattages less than or equal to 250 watts.
- (b) The standards described in paragraph (a) of this section do not apply to—
- (1) Metal halide lamp fixtures with regulated lag ballasts:
- (2) Metal halide lamp fixtures that use electronic ballasts that operate at 480 volts: or
  - (3) Metal halide lamp fixtures that;
  - (i) Are rated only for 150 watt lamps;

- (ii) Are rated for use in wet locations; as specified by the National Fire Protection Association in NFPA 70 (incorporated by reference; see § 431.323); and
- (iii) Contain a ballast that is rated to operate at ambient air temperatures above 50 °C, as specified in UL 1029, (incorporated by reference; see § 431.323).

### Subpart T [Reserved]

### Subpart U—Enforcement

SOURCE: 69 FR 61941, Oct. 21, 2004, unless otherwise noted. Redesignated at 70 FR 60416, Oct. 18, 2005.

#### §431.381 Purpose and scope.

This subpart describes violations of EPCA's energy conservation requirements, specific procedures we will follow in pursuing alleged non-compliance of an electric motor with an applicable energy conservation standard or labeling requirement, and general procedures for enforcement action, largely drawn directly from EPCA, that apply to both electric motors and commercial HVAC & WH products.

### §431.382 Prohibited acts.

- (a) Each of the following is a prohibited act under sections 332 and 345 of the Act:
- (1) Distribution in commerce by a manufacturer or private labeler of any "new covered equipment" which is not labeled in accordance with an applicable labeling rule prescribed in accordance with Section 344 of the Act, and in this part;
- (2) Removal from any "new covered equipment" or rendering illegible, by a manufacturer, distributor, retailer, or private labeler, of any label required under this Part to be provided with such covered equipment:
- (3) Failure to permit access to, or copying of records required to be supplied under the Act and this part, or failure to make reports or provide other information required to be supplied under the Act and this part;
- (4) Advertisement of an electric motor or motors, by a manufacturer, distributor, retailer, or private labeler, in a catalog from which the equipment may be purchased, without including in the catalog all information as required